

In the claims:

Please amend the claims as set forth below:

1. (Cancelled)

2. (Currently Amended) A method of managing incoming calls as recited in claim 1, 7,

wherein the step of receiving an incoming call includes the steps of:

listening for an incoming call; and

connecting to the incoming call when it occurs.

3. (Currently Amended) A method of managing incoming calls as recited in claim 1, 7,

wherein the step of receiving one or more input signals from the caller includes the steps of:

receiving a selection event from the caller by the call object; and

determining from the selection event which of the selection items in the department table
was selected by the caller.

4. (Original) A method of managing incoming calls as recited in claim 3, wherein the
selection event is a DTMF tone produced by the caller.

5. (Original) A method of managing incoming calls as recited in claim 3, wherein the
selection event is a recognized voice input from the caller.

6. (Cancelled)

7. (Currently Amended) A method of managing incoming calls as recited in claim 6, A
method, in a data processing system having a plurality of computing nodes, of managing
incoming calls for an organization having a plurality of departments and a plurality of agents, the
method comprising the steps of:
receiving one or more incoming calls by a call manager object, a call manager object
being present in each of the plurality of computing nodes;

7 creating an associated call object for each incoming call in response to receiving the ○
8 incoming call;
9 playing to the caller a voice menu describing a plurality of selection items in a department
10 table corresponding to a department in the organization, each call object including the
11 department table with which the call is currently associated, the department table including
12 ~~wherein the alternate routing information includes voice mail box information and operator~~
13 ~~information;~~
14 receiving one or more input signals from the caller in response to the voice menu played
15 to the caller; and
16 managing the incoming call according to a call-management policy based on the
17 information contained in the department table and the input signals from the caller to attempt to
18 reach one of the plurality of agents of the organization by:
19 determining if an agent is available according to the department table described in the
20 voice menu;
21 obtaining the agent's directory number from the department table, transferring the call to
22 the agent, and disconnecting from the call, if the agent is available; ~~wherein the step of handling~~
23 ~~the call according to the alternate routing information includes the steps of:~~
24 determining whether or not voice mail box is available for the department according to
25 the department table, if the agent is not available;
26 ~~if voice mail is available,~~ recording a message from the caller and storing it in the voice
27 mail box, if voice mail is available;
28 ~~if voice mail is not available,~~ determining whether the operator is available, if voice mail
29 is not available;
30 ~~if the operator is available,~~ transferring the caller to the operator, if the operator is
31 available; and
32 ~~if the operator is not available,~~ recording a message from the caller in the default mailbox
33 disconnecting from the caller, if the operator is not available.

1 8. (Currently amended) A method of managing incoming calls as recited in claim 17,
2 wherein the organization has an organization database; and

BA
CMT
3 wherein the plurality of agents includes local agents and one or more remote agents, each
4 of which can have access to the organization database.

1 9. (Original) A method of managing incoming calls as recited in claim 8, wherein a remote
2 agent is connected to the organization through an ISDN line.

1 10. (Original) A method of managing incoming calls as recited in claim 9, wherein remote
2 agents communicate information to the organization over the D-channel of the ISDN using X.25
3 protocol.

1 11. (Original) A method of managing incoming calls as recited in claim 10, wherein the
2 information communicated includes agent status and queries not visible to the caller.

1 12. (Original) A method of managing incoming calls as recited in claim 8, wherein remote
2 agents can communicate to each other and to local agents over the Internet.

BA
3 13. (Currently Amended) A method of managing incoming calls as recited in claim 1-7,
2 wherein the incoming call has caller ID information associated with it; and
3 wherein the step of managing the incoming call according to the call-management policy
4 includes:
5 transferring the incoming call to an agent based on the caller ID information; and
6 disconnecting from the call.


1 14. (Currently Amended) A method of managing incoming calls as recited in claim 1-7,
2 wherein the department table can contain Java objects.

1 15. (Original) A method of managing incoming calls as recited in claim 14, wherein a Java
2 object in the table is a voice menu file.


1 16. (Original) A method of managing incoming calls as recited in claim 14, wherein a Java
2 object in the table is an XML object.

1 17. (Original) A method of managing incoming calls as recited in claim 14, wherein a Java
2 object in the table is a file object.

1 18. (Original) A method of managing incoming calls as recited in claim 14, wherein a Java
2 object in the table is another table object.

 1 19. (Currently Amended) A method of managing incoming calls as recited in claim 17,
2 wherein the department tables are JDBC-accessible tables.

1 20. (Cancelled)

 1 21. (Currently Amended) A method of managing incoming calls as recited in claim 20 A
2 method, in a data processing system having a plurality of computing nodes, of managing
3 incoming calls for an organization having a plurality of departments and a plurality of agents, the
4 method comprising the steps of:

5 receiving one or more incoming calls by a call manager object, a call manager object
6 being present in each of the plurality of computing nodes;
7 creating an associated call object for each incoming call in response to receiving the
8 incoming call;

9 playing to the caller a voice menu describing a plurality of selection items in a department
10 table corresponding to a department in the organization, each call object including the
11 department table with which the call is currently associated,

12 wherein the department table has a plurality of rows and columns,

13 wherein the rows are selected by the input calls from the caller, and

14 wherein the columns of the selected row contain information used by the call manager

15 object to implement a call-management policy, wherein the columns of the selected row include

16 including fields for specifying a voice menu file for the selected row, the availability of an

17 agent, the agent's directory number, the availability of another department, and the availability of
18 voice mail for the department for the call-management policy ;

19 receiving one or more input signals from the caller in response to the voice menu played
20 to the caller; and

21 managing the incoming call according to the call-management policy based on the
22 information contained in the table and the input signals from the caller to attempt to reach one of
23 the plurality of agents of the organization.

24 22. (Currently Amended) A method of managing incoming calls as recited in claim 1-7,
25 wherein each call object is an element of an array of call objects managed by the call manager
26 object.

27 23. (Currently Amended) A method of managing incoming calls as recited in claim 1-7,
28 wherein the call manager object can invoke any one of the call objects to play a voice menu,
29 record a caller message, to transfer a call, or to obtain another department table for the call
30 associated with the call object.

31 24. (Currently) A method of managing incoming calls as recited in claim 1-7, wherein the call
32 object is capable of being coupled to an ISDN PSTN system and capable receiving notice of and
33 responding directly to ISDN events upon their occurrence.

34 25. (Currently Amended) A method of managing incoming calls as recited in claim 1-7,
35 wherein the call manager object is capable of being coupled to an ISDN PSTN system and
36 capable of receiving notice of and responding directly to ISDN events upon their occurrence.

37 26. (Previously Amended) A method, in a data processing system having a plurality of
38 computing nodes, of managing incoming calls for an organization having a plurality of
39 departments, an organization database and a plurality of agents, the method comprising the steps
40 of:

5 (a) receiving an incoming voice call by a call manager object, a call manager object being
6 present in each of the plurality of computing nodes;

7 (b) creating an associated call object for each incoming call in response to receiving the
8 incoming call;

9 (c) playing to the caller a voice menu corresponding to a plurality of selection items in a
10 department table for the organization, each call object including the department table with which
11 the call is currently associated;

12 (d) receiving an input signal from the caller in response to the voice menu played to the
13 caller, the input signal specifying one of the plurality of selection items in the department table;

14 (e) determining whether or not an agent is available for the selected item in the
15 department table;

16 if an agent is available, (f) obtaining the agent's number from the department table and
17 transferring the call to the agent and continuing at step (h);

18 if an agent is not available and if another department table is available, (g) obtaining
19 another department table from the organization database and continuing at step (c); and

20 (h) disconnecting from the caller.

1 27. (Previously Amended) A method of managing incoming calls for an organization having
2 a plurality of departments, an organization database and a plurality of agents as recited in claim
3 26, further comprising the steps of:

4 prior to step (h),

5 if another department table is not available, (j) determining from the table whether
6 department voice mail is available;

7 if department voice mail is available, (k) recording a voice message from the
8 caller;

9 if department voice mail is not available, (l) determining whether an operator is
10 available;

11 if the operator is available, (m) transferring the call to the operator; and

12 if the operator is not available, (n) recording a voice message from the caller.

1 28. (Previously Amended) A call management system for an organization having a plurality
2 of departments and a plurality of agents, comprising:

3 a plurality of computer processing nodes;
4 an ISDN interface adapter connected to multiple ISDN B-channels and at least one
5 computer processing node;
6 a main memory included in each computer processing node connected to an ISDN
7 channel,

8 wherein the main memory stores a computer program instructing the computer processing
9 node to carry out the steps of:

10 receiving an incoming call from a caller by a call manager object;
11 creating an associated call object for each incoming call in response to receiving
12 the incoming call;

13 playing a voice menu corresponding to a plurality of selection items in a
14 department table for the organization to the caller over an ISDN B-channel, each call object
15 including the department table with which the call is currently associated;

16 detecting incoming signals from the caller on an ISDN-B channel in response to a
17 voice message played for the caller;

18 accessing the table based on the incoming signals from the caller; and

19 connecting the caller to any available agent according to a call-management policy
20 based on the table.

1 29. (Cancelled)

1 30. (Currently Amended) ~~A computer processing storage medium as recited in claim 29~~ A
2 storage medium for a data processing system having a plurality of computing nodes, the medium
3 having stored thereon a program for managing incoming calls for an organization having a
4 plurality of departments, and a plurality of agents, the program residing on each computing node
5 of the data processing system and instructing each node to carry out the steps of:

6 receiving one or more incoming calls;

7 creating an associated call object for each incoming call in response to receiving the
8 incoming call;
9 playing to the caller a voice menu describing a plurality of selection items in a department
10 table corresponding to a department in the organization, each call object including the
11 department table with which the call is currently associated, wherein the department table
12 includes agent availability information and alternative routing information ;
13 receiving one or more input signals from the caller in response to the voice menu played
14 to the caller; and
15 managing the incoming call according to a call-management policy based on the
16 information contained in the department table and the input signals from the caller to attempt to
17 reach one of the plurality of agents of the organization.

1 31. (Cancelled)

2 32. (Currently Amended) A call management software system for managing incoming calls to
3 an organization having a plurality of departments and a plurality of agents, as recited in claim 31
4 28, further including a Java-ISDN interface program for implementing one or more of the call
5 object methods in native code and for providing an interface which allows the call manager
6 object and call objects to respond to hardware events pertaining to the incoming call.

1 33. (Currently Amended) A call management software system for managing incoming calls to
2 an organization having a plurality of departments and a plurality of agents as recited in claim 31
3 28, wherein the table is a JDBC-accessible table.

1 34. (Currently Amended) A call management software system for managing incoming calls to
2 an organization having a plurality of departments and a plurality of agents as recited in claim 31
3 28, wherein the table contains Java objects.